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aspartic acid substituted for glutamic acid or vice versa; asparagine substituted for glutamine or vice versa; serine substituted for threonine or vice versa; lysine substituted for arginine or vice versa; or phenylalanine substituted for tyrosine or vice versa.--

REMARKS

Applicants have amended claims 3 and 4 to correct their dependencies and have amended claim 92 in view of the Examiner's rejection under 35 U.S.C. §103 over Sato et al. Support for the amendment to claim 92 may be found in the specification, *inter alia*, on page 8, lines 1-34, Figure 1, and page 10, lines 19-24. Applicants maintain that these amendments raise no issue of new matter. Thus, claims 3, 4 and 21 are pending.

Rejections Withdrawn

The Examiner withdrew the rejection of claims 1, 3, and 4 under 35 U.S.C. 102(a) as being anticipated Cheng et al. (Science 267:11494-1498, March 10, 1995-IDS) in light of the 37 C.F.R. §1.132 declaration of Dr. Lederman and the cancellation of claim 1.

The Examiner withdrew the rejection of claims 1, 3, and 4 under 35 U.S.C. 102(a) as being anticipated by Hu et al. (J. Biol. Chem. 269:30069-30072, Dec. 1994-IDS) in light of the cancellation and amendments to the claims.

Rejection Under 35 U.S.C. §112, second paragraph

The Examiner rejected claim 92 and dependent claims 3 and 4 under 35 U.S.C. §112, second paragraph, as being indefinite for failing

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to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner stated that new base claim 92 still refers to Figure 1. The claim now includes a SEQ ID NO. but it is improper to refer to a Figure within the body of a claim.

The Examiner stated that the recitation of "a protein which comprises amino acids, the amino acid sequence of which..." found in new base claim 92 is vague and indefinite. The Examiner stated that it cannot be determined if the language describing the protein is open or closed. The Examiner stated that is the language meant to indicate the protein is made of amino acids and then further described by the rest of the claim, or is the recitation "the amino acids sequence of which" referring to the amino acids comprising the protein. The Examiner stated that the antecedent basis for "the amino acid sequence" is lacking and the referral of which following it is unclear. The Examiner stated that in light of the indefiniteness of the language, the protein will be read as open, comprising the parameters of (a), (b), (c), and (d).

The Examiner stated that the recitation at line 5 claim 92 "a proline corresponding to the proline shown at position number 564 in SEQ ID NO: 1" is vague and indefinite because the meaning cannot be determined. The Examiner stated that a proline is a proline, and it is not clear what characteristics a proline must possess in order to correlate to the specific proline indicated. Similarly, the Examiner stated that the meaning of an amino acid corresponding to Ser 324 cannot be determined either.

In reply, applicants have amended claim 92 in the following ways. The reference to Figure 1 has been deleted. The phrase "the

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amino acid sequence of which" has been deleted from the preamble and the preamble has been reworded. Elements (b), (c) and (d) have been amended to clarify the description of the amino acid sequence characteristics required by claim 92. Applicants maintain that these amendments obviate the grounds of rejection above and respectfully request the Examiner to reconsider and withdraw this ground of rejection.

Rejection Under 35 U.S.C. §102(b)

The Examiner rejected claims 92, 3 and 4 under 35 U.S.C. §102(b) as being anticipated by Sato et al. (Febs Lett. 358:113-118, Jan. 23, 1995) for reasons of record in the office actions of 8/18/98 and 6/4/99.

The Examiner stated that applicant argues that Sato et al. does not teach the truncated protein as claimed but only disclose structural characteristics of the larger protein or a cDNA that encodes little more than the TRAF domain, but from which protein was not expressed and isolated. The Examiner stated that this argument has been considered but is not found to be persuasive.

The Examiner stated that that Sato et al. teach a protein commensurate in scope with the instantly claimed protein. The Examiner stated that on page 114, column 2, lines 7-9, a protein comprising residues 363-543 of CAP-1 is set forth. The Examiner stated that again on page 115, in Table 1, the pACT-CAP-1 clone 2229 is taught to encode a C-terminal 181 amino acid CAP-1 peptide which is expressed into a protein comprising the instant parameters. The Examiner stated that again on page 115, in the legend to Figure 1, *in vitro* translated CAP-1 peptide of the C-terminal 181 amino acids is taught to be incubated with radiolabel and used in an *in vitro* binding assay. The Examiner

stated that page 117, first full paragraph, teaches that the original clone which encoded little more than the TRAF domain encoded residues 384-540, which is the 181 amino acid C-terminal portion. The Examiner stated that comparison of the residues of Sato et al.'s truncated peptide and the instantly claimed peptide, or protein comprising, are identical. The Examiner stated that Sato et al.'s peptide is included in the instant SEQ ID NO: 1. The Examiner stated that Sato et al.'s peptide contains proline 564 of SEQ ID NO: 1. The Examiner stated that Sato et al.'s peptide comprises amino acids 414 to 567 of SEQ ID NO: 1, contiguously. The Examiner stated that Sato et al.'s peptide does not extend past residue 324 of SEQ ID NO: 1. The Examiner stated that the peptide of Sato et al. is identical to the peptide of either mouse or human. Thus, the Examiner stated that Sato et al.'s protein and peptide meets the claim limitations.

In reply, applicants traverse the rejection. To accelerate the prosecution of this application and without conceding the correctness of the Examiner's position, applicants have amended claim 1 to specify that the amino terminus of the claimed protein to begin from any amino acid located between the serine at position 324 and the serine at position 385 of SEQ ID NO:1 (see element (c) of claim 92). Applicants maintain that the specification supports such an amendment in that the disclosure of the subject application includes all possible amino acids which are truncated proteins of the CRAF-1 sequence shown in Figure 1 wherein the truncations occur between position number 323 and position 414 at the amino terminus. See page 8, lines 1-9 of the specification.

The Examiner has stated that Sato et al. allegedly disclose a protein starting at CAP-1 residue 384 and ending with CAP-1

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residue 540. See June 4, 1999 Office Action. Based on the numbering presented in Figure 2 of Sato et al., applicants point out that this protein begins at amino acid residue number 386 of the SEQ ID NO:1 of the present invention and ends at amino acid residue 567 of SEQ ID NO:1. Therefore, Sato et al. do not disclose every element of the claimed invention. Specifically, Sato et al. do not disclose elements (c) and (d) of claim 92. Sato et al. do not disclose a protein comprising continuous amino acids as shown in SEQ ID NO:1 between the proline at position number 567 and the serine at position number 385; or a protein which does not extend at its amino terminus beyond the serine shown in SEQ ID NO: 1 at position number 324. Thus, applicants maintain that Sato et al. do not disclose or anticipate the presently claimed invention. In view of the amendments and discussion above, applicants request that the Examiner reconsider and withdraw this ground of rejection and allow this application to pass to allowance.

If a telephone interview would be of assistance in advancing prosecution of the subject application, applicants' undersigned attorney invites the Examiner to telephone at the number provided below.

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No fee, other than the \$435.00 extension of time fee, is deemed necessary in connection with the filing of this Amendment. However, if any additional fee is required, authorization is given to charge the amount of any such fee to Deposit Account No. 03-3125.

Respectfully submitted,

Jane M. Love

I hereby certify that this correspondence is being deposited this date with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to:
Assistant Commissioner for Patents,
Washington, D.C. 20231.

Jane M. Love 8/18/00
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